

Application No.: 10/579,089
Filing Date: March 9, 2007

REMARKS

After entry of the present amendments Claims 1-15, 18, 19, 22, 24, and 31-79 will be pending. Claims 1-4 are amended herein to recite a protein concentrate "having a calcium content between 100 mM/kg protein and 700 mM/kg protein" and to remove the "if required" steps. Claim 3 is amended to remove optional steps. Claim 4 is also amended to correct a spelling error. New Claim 74 is added to depend from Claim 3 and recite adding a flavor concentrate. New Claim 75 is added to depend from Claim 3 and recite that the cheese precursor is divided into consumer portions. Claim 18 is amended to depend from Claim 1. New Claims 76-79 are added, depending from Claim 1-4, respectively, reciting mixing the protein concentrate with a source of fat and/or liquid.

Support for the amendments can be found throughout the specification and claims as originally filed, in particular page 9 lines 10-14 and 22-28 of the specification as filed (corresponding to paragraphs [0074] and [0076] of the specification as published). No new matter is added.

Applicants submit that this application is in condition for allowance and such action is earnestly requested. Each of the Examiner's reasons for rejection is addressed below.

Claim objections

The Examiner objected to Claim 18. Claim 18 is amended to clarify that it depends from Claim 1.

Rejections under 35 U.S.C. § 112

Claims 1-4 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner specifically objected to the use of the phrase "if required" in Claims 1-4. Without acquiescing in the rejection, Claims 1-4 are amended to remove the "if required" steps.

The Examiner also objected to the use of "optionally" in Claim 3. Without acquiescing in the rejection, Claim 3 is amended to remove the optional steps.

Rejections under 35 U.S.C. § 103(a)

It is well settled that the Examiner “bears the initial burden of presenting a *prima facie* case of unpatentability...” *In re Sullivan*, 498 F.3d 1345 (Fed. Cir. 2007). Until the Examiner has established a *prima facie* case of obviousness, the Applicant need not present arguments or evidence of non-obviousness. To establish a *prima facie* case of obviousness, the Examiner must establish at least three elements. First, the prior art reference (or references when combined) must teach or suggest all of the claim limitations: “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 165 U.S.P.Q. 494, 496 (CCPA 1970); *see also M.P.E.P. § 2143.03*. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986); *Pharmastem Therapeutics v. Viacell, Inc.*, 491 F.3d 1342, 83 U.S.P.Q.2d 1289 (Fed. Cir. 2007); *see also M.P.E.P. § 2143.02*. And finally, the Examiner must articulate some reason to modify or combine the cited references that renders the claim obvious. Merely establishing that the claimed elements can be found in the prior art is not sufficient to establish a *prima facie* case of obviousness:

As is clear from cases such as *Adams*, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (emphasis added).

Instead, the Court has made clear that the Examiner must establish a reason one of skill in the art would have combined the elements of the prior art, and that such reason must be more than a conclusory statement that it would have been obvious.

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. *See In re Kahn*, 441 F.3d 977, 988 (C.A.Fed.2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-1741 (2007).

Applicants respectfully submit that the pending claims as amended are not obvious under 35 U.S.C. § 103(a) for the reasons detailed below.

The Combination of Blazey/Lashkari Does Not Make Claims 1, 4, 5, 9, 10-13, 15, 18, 19, 22, 63-67, and 69-72 Obvious

Claims 1, 4, 5, 9, 10-13, 15, 18, 19, 22, 63-67, and 69-72 stand rejected under 35 U.S.C. § 103(a) as unpatentable in view of U.S. Patent No. 6,177,118 to Blazey et al. (hereinafter Blazey) in view of GB 1,057 170 to Lashkari as evidenced by U.S. Patent No. 4,655,127 to Skovhauge et al and U.S. Patent No. 5,455,051 to Groesbeck et al.

The Examiner found that “Blazey does not explicitly disclose formation of a coagulated cheese mass but it does provide for like materials (lactic acid) used in a like manner (heated with the protein and fat) which would indicate that a cheese mass was formed by heat coagulation where Skovhauge teaches lactic acid as a coagulant and that heat coagulated cheeses are made at temperatures between 50°C-100°C”. Office Action, page 4-5.

Applicants respectfully disagree with the combination proposed by the Examiner. Blazey teaches away from using lactic acid as a coagulant. It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

Specifically, Blazey discloses that “Other preferred ingredients include organic and inorganic acids, especially citric acid or lactic acid, for adjusting the pH of the composition *without* precipitating, aggregating, *coagulating*, or gelling the proteins”. Col. 6, lines 58-61 (emphasis added). Blazey further discloses a benefit over the prior art that “a milk coagulating enzyme, such as rennet, is not required or can be used as an optional ingredient for treating a minor portion of the milk protein”. Col. 6, line 67-col. 7, line 2.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Thus, the Applicants respectfully submit that the combination of Blazey and Lashkari suggested by the Examiner is improper because Blazey teaches away from such a combination. Accordingly, Applicants respectfully request withdrawal of this rejection for at least this reason.

Further, there is no reason to make the combination of Blazey and Lashkari proposed by the Examiner. One of the goals of Blazey is to make a fast cheese, for example Blazey discloses that “the process is rapid and takes less than about 30 minutes from making the first blend with concentrated milk retentate to the point of packaging of the molten cheese”. Col. 7, lines 3-5. Lashkari discloses the use of a sub-culture medium, including use of *Penicillium roqueforti*, and that “[i]t is usually necessary to incubate this medium for a period of time exceeding 7 days, a particularly suitable time being about 48 hours.” Page 1, line 80 to page 2, line 2.

Thus, adding the bacterium as taught in Lashkari would require aging on the order of days, which would frustrate the purpose of the rapid cheese process of Blazey. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Thus, the combination of Blazey and Lashkari is improper for at least this reason.

Moreover, assuming *arguendo* that the combination of Blazey and Laskari proposed by the Examiner is proper, it fails to disclose all of the features of independent Claims 1-4 as amended herein. Claims 1-4 are amended herein to recite “providing a protein concentrate having a calcium content between 100 mM/kg protein and 700 mM/kg protein”. The combination of Blazey and Lashkari fails to disclose this feature, inherently or explicitly. Blazey discloses increasing the calcium content of the starting protein concentrate by the addition of calcium caseinate (*see* col. 6, line 55; col. 14, line 54; and col. 15, line 21) or the addition of calcium isolate (TMP) (*see* col. 13, line 32; col. 14, line 9). Lashkari also fails to disclose this feature. Accordingly, Applicants respectfully request withdrawal of this rejection for at least this reason.

Additionally, Applicants submit that Claims 5-15, 18, 19, 22, 24, and 31-74 are also not made obvious by the combination of Blazey and Lashkari, not only because they depend from Claim 1-4, but also on their own merit.

The Combination of Blazey/Lashkari and Other References Do Not Make Claims 2, 3, 6-8, 11, 14, 24, 31-62, 68, and 73 Obvious

Claims 2, 3, 6-8, 11, 14, 24, 31-62, 68, and 73 stand rejected under 35 U.S.C. § 103 as unpatentable over Blazey and Lashkari and further in view of one or more of U.S. Patent No. 4,948,613 to Bernard et al. (hereinafter Bernard), U.S. Patent No. 3,091,539 to Chikuma (hereinafter Chikuma), U.S. Patent No. 2,965,492 to Bauman (hereinafter Bauman), and the American Cheese Society Webpage as evidenced by Skovhauge and Groesbeck.

The Examiner found Bernard to disclose a cheese product that is cooled, where the surface of the cheese is inoculated with micro-organisms that grow and promote the ripening of cheese. The Examiner found Chikuma to disclose a method of making a cheese product by freezing, thawing and further ripening curd. The Examiner found Bauman to disclose preparing a dried cheese product where the condensed milk is inoculated with lactic acid starter and *Penicillium roqueforti*. The Examiner found the American Cheese Society Webpage to disclose that cheese should be stored between 35°F and 45°F at a high humidity level.

As discussed above, Applicants submit that the combination of Blazey and Lashkari fails to disclose, explicitly or inherently, “providing a protein concentrate having a calcium content between 100 mM/kg protein and 700 mM/kg protein” as claimed in Claims 1-4. Further, Blazey teaches away from the combination of Blazey/Lashkari proposed by the Examiner, thus the combination is improper. Bernard, Chikuma, Bauman, and the American Cheese Society Webpage fail to make up for the deficiencies of Blazey and Lashkari noted above.

Accordingly, Applicants respectfully request withdrawal of the rejection of Claims 2, 3, 6-8, 11, 14, 24, 31-62, 68, and 73 for at least this reason.

No Disclaimers or Disavowals

Although the present communication includes alterations to the application or claims, or characterizations of claim scope or referenced art, Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure,

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including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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